



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/648,623	08/25/2003	Anjali Jha	020630	5329
23696 7590 01/05/2007 QUALCOMM INCORPORATED 5775 MOREHOUSE DR. SAN DIEGO, CA 92121			EXAMINER STEIN, JULIE E	
			ART UNIT	PAPER NUMBER
			2617	
SHORTENED STATUTORY PERIOD OF RESPONSE		NOTIFICATION DATE	DELIVERY MODE	
3 MONTHS		01/05/2007	ELECTRONIC	

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Notice of this Office communication was sent electronically on the above-indicated "Notification Date" and has a shortened statutory period for reply of 3 MONTHS from 01/05/2007.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

us-docketing@qualcomm.com
kscanla@qualcomm.com
t_ssadik@qualcomm.com

Office Action Summary

Application No.

10/648,623

Applicant(s)

JHA ET AL.

Examiner

Julie E. Stein, Esq.

Art Unit

2617

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 November 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3, 6-24, 27, 28, 30-34 and 36-66 is/are pending in the application.
- 4a) Of the above claim(s) 40-66 is/are withdrawn from consideration.
- 5) ☒ Claim(s) 32 and 36 is/are allowed.
- 6) ☒ Claim(s) 1-3, 6-24, 27, 28, 30, 31, 33, 34 and 37-39 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 25 August 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.
2. Claim 11 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.
3. Claim 11 recites the limitation "location services characteristic" in line 2. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. Claims 17-18, 20-21, 23, 33-34, and 37 are rejected under 35 U.S.C. 102(e) as being anticipated by Zellner.

Zellner discloses all the elements of independent claim 17, including a method of operating a location server (Figures 2 and 3, element 102), comprising the steps of: a) receiving a request for location services associated with a mobile station (inherent in view of step 204 of Figure 4); b) identifying a mobile station type of the associated

Art Unit: 2617

mobile station (column 2, lines 54 to 65 and column 4, lines 52 to 58); c) determining operational parameters associated with the identified mobile station type (column 6, lines 39 to 58, change in location or speed); and d) storing at least one of the operational parameters (Id. inherent in view of the comparison).

Zellner also discloses all the elements of claims 18, and 20-21, including receiving a request for location services associated with a mobile station including receiving a mobile station type identifier, a mobile station user identifier, an international mobile subscriber identity, or an electronic serial number. See, Zellner, column 2, lines 54 to 65 and column 4, lines 52 to 58.

Zellner discloses all the steps of claim 23, including the step of determining a performance parameter related to the request for location services (column 6, lines 39 to 58, change in location or speed).

Zellner also discloses all the steps of claim 33, including a method of operating a location server (Figures 2 and 3), comprising: a) receiving a request for location services associated with a mobile station (inherent in view of step 204 of Figure 4); b) identifying a mobile station type of the associated mobile station (column 2, lines 54 to 65 and column 4, lines 52 to 58); c) determining operational parameters associated with the identified mobile station type (column 6, lines 39 to 58, change in location or speed); and d) storing and retrieving data associated with and corresponding to at least one of the operational parameters of the associated mobile station (Id. inherent in view of the comparison).

Zellner discloses all the steps of claim 34, including the step of providing location services using location services control signals based at least in part on the at least one operational parameter. See, Zellner, column 6, lines 39 to 64.

The rejection of claim 33 is hereby incorporated. Zellner discloses all the steps of independent claim 37. Claim 37 is in essence the same method recited in claim 33, except that a plurality of mobile stations is recited. Zellner discloses more than one mobile station and location requests and corresponding performance parameter determination. See column 3, lines 1 to 7, which indicates that third parties can request the location information.

6. Claims 24, 27-28, and 30-31 are rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Patent Application Publication 2005/0014500 to Muhonen et al.

Muhonen discloses all the steps of independent claim 24, including a method of operating a mobile switching center (Figure 1 and 2, elements 22, 34), comprising the steps of: a) receiving a request for location services associated with a mobile station (paragraph 39), the request including a unique mobile equipment identifier (paragraph 43, IMS identity); b) identifying a mobile station type of the associated mobile station by querying a database for the mobile station type with the unique mobile equipment identifier (paragraphs 37 (the HLR has subscriber specific data which would include model type or MSISDN or IMSI) and 43); and c) communicating the request for location services and the mobile station type to a location server (paragraph 43, the location request is supplied to the GLMC).

Muhonen discloses all the steps of claim 27, including wherein the mobile station user identifier may include an international mobile subscriber identity or an electronic serial number. See, paragraph 43.

Muhonen discloses all the steps of claim 28, including receiving an international mobile equipment identifier (IMEI identity) from the mobile switching center; and querying an equipment identification server (HLR) for a manufacturer identifier and model identifier based on the received international mobile equipment identifier (paragraph 43).

Muhonen discloses all the steps of claim 30, including wherein the unique mobile equipment identifier may be received as an element in the standard location request message. See Figure 2.

Muhonen discloses all the steps of claim 31, including wherein the unique mobile equipment identifier may be transmitted as an element in a proprietary message between the mobile switching center and the location server. See Figure 2 and its corresponding description.

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 19, 22, and 38-39 are rejected under 35 U.S.C. 103(a) as being unpatentable over Zellner.

Zellner teaches all the elements of claims 19 and 22 except receiving a request for location services associated with a mobile station includes receiving a mobile station mobile station manufacturer identifier and a mobile station model identifier, including manufacturer and model. But, Zellner teaches in column 2, lines 54 to 65 and column 4, lines 52 to 58 various types of device identifiers. In addition, the Examiner takes Official Notice that the above listed identifiers are well known in the art and would be understood by one of ordinary skill in the art to be included in the "unique identification numbers" described in Zellner. In addition, these "mobile station type identifiers" could be determined from the serial number taught by Zellner.

The rejections of claims 33 and 37 are hereby incorporated. Claim 38 is in essence the same method recited in claims 33 and 37, except the method relates to a communication system, including a plurality of mobile stations. Zellner teaches all the steps of independent claim 38, except a plurality of mobile stations. However, the Examiner takes Official Notice that it is well known in the art that the method of Zellner could be expanded in a communication system and thus performed on a plurality of mobile stations.

Zellner teaches all the steps of claim 39, including receiving requests for location services from a plurality of mobile stations; and providing the requested location services. See above.

Art Unit: 2617

9. Claims 1-3 and 6-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Benes in view of U.S. Patent No. 4,751,512 to Longaker.

Benes teaches all the elements of independent claim 1, including, a location services apparatus for providing location services to a mobile station comprising:

a) a CPU (Figure 1, element 116, PDE);

b) a memory (Figure 1, element 120, DB) coupled to the CPU (Figure 1), wherein the memory stores data comprising location services equipment identity information and a plurality of location services equipment identifiers (column 4, line 30 to column 5, line 13, describes the database 120 storing the id of each mobile station as well as location capability of each mobile station and various other parameters, such as statistical information related to each mobile station); and

c) an equipment identity processor (Figure 1, element 118, processor) coupled to the CPU and to the memory (Figure 1), wherein the equipment identity processor is configured to receive a location services equipment identifier of the plurality, (column 5, lines 54 to 55) to retrieve information comprising a location services equipment identity corresponding to the identifier (column 5, lines 54 to 60), and wherein the equipment identity processor selectively generates location services control signals that control operation of the CPU responsive to an identified characteristic of the location services equipment identity (Figure 2 and column 5, line 54 to column 7, line 14).

However, Benes does not teach to identify an error or bug characteristic associated with the location services equipment identity. But Longaker does teach that equipment errors are well known in the art (all the way back to 1996) in wireless devices

Art Unit: 2617

used for navigation. See column 1, line 58 to column 2, lines 6. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to identify the equipment error in order to improve the accuracy of the locating service. See Longaker, column 2, lines 3 to 6.

Benes in view of Longaker also teaches all the elements of claim 2, including wherein the location services equipment identity information and the location services equipment identifiers are associated with and correspond to a mobile station. See, Benes, column 3, lines 38 to 40 and column 4, lines 32 to 34.

Benes in view of Longaker also teaches all the elements of claim 3, including the apparatus further comprising an equipment identity server (Benes, Figure 4, element 114, MPC), wherein the equipment identity server is configured to provide the characteristic of the mobile station to the equipment identity processor (Benes, column 5, lines 52 to 53).

Benes in view of Longaker teach all the elements of claims 6-7, including wherein the characteristic includes an error code (Longaker, see claim 1) associated with the mobile station and wherein the location services control signals compensate for an error associated with the error code (this would have been obvious to one of ordinary skill in the art at the time the invention was made because as Longaker teaches, by taking into account the known equipment errors the achievable level of accuracy and precision could be increased. See column 1, line 62 to column 2, line 6.

Art Unit: 2617

Benes in view of Longaker teach all the elements of claim 8, including wherein the location services control signals cause the CPU to store information in the memory. See Benes, column 5, line 40 to column 7, line 14.

The rejection of independent claims 1 and dependent claims 2-3 and 6-8 are hereby incorporated. Benes in view of Longaker teaches all the elements of independent claim 9, including a communication system for providing location services to a mobile station, the system comprising:

- a) a base station system (Benes, Figure 1, element 104); and
- b) a location server (Benes, Figure 1, elements 114, 116, 118, 120) coupled with the base station system (Benes, Figure 1), wherein the location server is configured to identify an error or bug characteristic associated with equipment comprising the mobile station (Longaker, column 1, line 64 to column 2, line 6) selectively generate location services control signals to control operation of the system (Benes, Figure 2 and column 5, line 54 to column 7, line 14) to correct the identified characteristic (Longaker, column 1, line 64 to column 2, line 6 and claims 7).

The rejection of independent claims 1 and 9, and dependent claims 2-3 and 6-8 are hereby incorporated. Benes in view of Longaker teaches all the elements of independent claim 10, including a method of providing location services to a mobile station, the method comprising the steps of:

- a) receiving a request for location services to be provided to the mobile station (Benes, Figure 3 and column 7, lines 35 to 43); and

b) identifying an equipment characteristic of the mobile station in response to the request (Benes, column 7, lines 35 to 43), wherein the equipment characteristic comprises one or more of the following characteristics: a bug, an error code (Longaker, column 1, line 64 to column 2, line 6);

c) selectively generating location services control signals based at least in part on the equipment characteristic identified in step b) (Benes, column 7, lines 44 to 61 and Figure 3).

Benes in view of Longaker teaches all the elements of dependent claim 11, including the step of storing data based at least in part on the location services characteristic of the mobile station. (The Examiner is interpreting this claim to mean the same as the "equipment" characteristic of the preceding claim and to simply not to have been amended correctly). See Benes, column 7, lines 44 to 49.

Benes in view of Longaker teach all the elements of claims 12-13, including wherein the characteristic includes an error code (Longaker, see claim 1) associated with the mobile station and wherein the location services control signals compensate for an error associated with the error code (this would have been obvious to one of ordinary skill in the art at the time the invention was made because as Longaker teaches, by taking into account the known equipment errors the achievable level of accuracy and precision could be increased. See column 1, line 62 to column 2, line 6.

The rejection of claims 1-3, 6-13 are hereby incorporated. Benes in view of Longaker teaches all the elements of independent claim 14, including a communication system comprising:

a) a means for providing location services to a mobile station (Benes, Figure 1 and column 3, line 32 to column 5, line 39);

b) a means for identifying an error or bug characteristic of the equipment comprising the mobile station (Longaker, column 1, line 64 to column 2, line 6); and

c) a means for controlling the means for providing location services to correct the identified characteristic (Id. and claims 7 and 13).

Benes in view of Longaker teaches all the elements of claim 15, including a means for identifying a mobile station to which location services are to be provided. See Benes, column 3, lines 38 to 40 and column 4, lines 32 to 34.

Benes in view of Longaker teaches all the elements of claim 16, including a means for storing data based at least in part on the identified location services characteristic of the mobile station. See Benes, column 5, line 40 to column 7, line 14.

Allowable Subject Matter

10. Claims 32 and 36 are allowed.

11. The following is a statement of reasons for the indication of allowable subject matter: The prior art as described above teaches receiving requests for location services associated with mobile stations and identifying mobile station types associated with various mobile stations. However, the prior art of record does not teach the above steps in combination with identifying and determining errors related to the location request and storing and retrieving data relating to the errors and corrective action based on the identified mobile station type from a database.

Response to Arguments

12. Applicant's arguments with respect to claims 1-3, 6-24, 27-28, 30-34, and 36-39 have been considered but are moot in view of the new grounds of rejection.

Conclusion

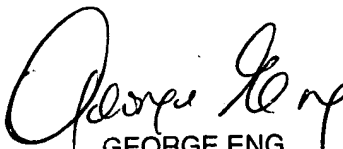
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Julie E. Stein, Esq. whose telephone number is (571) 272-7897. The examiner can normally be reached on M-F (8:30 am-5:00 pm).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, George Eng can be reached on (571) 272-7495. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

JES

JES


GEORGE ENG
SUPERVISORY PATENT EXAMINER